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ONTARIO GOVERNMENT
NET GENERAL REVENUE FORECAST
1968-69 to 1972-73

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ONTARIO GOVERNMENT
NET GENERAL REVENUE FORECAST

FISCAL YEARS 1968-69 to 1972-73

TAXATION AND FISCAL POLICY BRANCH
TREASURY DEPARTMENT (FINANCE & ECONOMICS)
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NET GENERAL REVENUE FORECAST

FISCAL YEARS: 1968-69 to 1972-73

1. Introduction

The accompanying tables represent a comprehensive attempt to estimate the growth capacity of Ontario net general revenues relative to varying rates of economic growth for the fiscal period 1968-69 to 1972-73. The primary objective of the exercise is to provide a basis for analysing the financial implications of departmental expenditure projections for the same period.

A second and longer-run objective has been to move toward the development of standardized forecasting procedures and techniques. The availability of a comprehensive format which will lend itself to periodic adjustment, will be a useful addition to the continuing financial and fiscal planning process.

It is intended that the material presented here will be further refined and improved. Greater use will be made of current economic intelligence assembled by other branches in the department and it is anticipated that analysis in greater depth will be possible through the use of computer tapes covering various tax fields. Such analysis would provide valuable information concerning changes in tax bases, as well as the effects on revenue of cyclical swings in the economy.

2. Assumptions

(a) Two independent estimates of economic growth have been selected for the forecast period. A growth rate of 7 per cent per annum in Provincial Domestic Product is taken as the minimum annual growth rate for the period. This assumes a growth in real output of 4.0 per cent and an inflationary factor of 3.0 per cent. A second rate of growth of 8.5 per cent is considered an attainable goal during the period. Under this assumption, the general components would consist of a real growth in output of 5 per cent, and 3.5 per cent in price increases. The two streams of revenue resulting from independent application of

these two rates of growth of Provincial Domestic Product produce a range of anticipated revenues over the period. This approach allows for possible year-to-year swings within the target range. In this respect it differs from the method of calculating actual revenue expectations for budgetary purposes in any given fiscal year.

(b) Provincial Domestic Product at market prices has been selected in preference to the more conventional use of some gross measure of economic growth, since it nets out transactions with non-residents. Where a gross measure of total output is employed, it reflects in money terms the total income being generated. In cases where a relatively significant proportion of such income is paid to non-residents, it effectively reduces expenditure on goods and services relative to gross income produced in the Province.

(c) It is assumed that no tax changes will take place during the forecast period. Where changes have already been announced or implemented, the anticipated effects of such changes have been incorporated into the 1967-68 base year.

3. Technical Notes and Methodology

(a) Symbols: As a means toward simplifying calculations appearing in the tables accompanying this forecast, the following symbols have been employed:

PDP - Provincial Domestic Product
PDI - Personal Disposable Income
PI - Personal Income
Cons - Consumption
Pop - Population
Reg - Registrations
V - Value
G - Growth
e - Coefficient of Elasticity
F(0.92) - Conversion of relevant tax base measure to Provincial Domestic Product.

(b) Methodology: The primary objective is to measure the sensitivity of tax yields to other economic variables. In this case, attention is centred on measuring the increase in total tax revenue relative to the assumed growth rates of Provincial Domestic Product. This relationship is, wherever possible, expressed in terms of a coefficient of elasticity. When the absolute value of e, the coefficient of elasticity, is greater than one, we say the particular tax field we are analyzing is elastic relative to Provincial Domestic Product, Personal Income or whichever measure is considered relevant to the calculation. Conversely, when the coefficient of elasticity is of an absolute magnitude less than one, a tax field is inelastic with regard to its relevant economic measure. The general approach can be described as follows:

If the objective is to predict the yield of personal income taxation in a given period, it is necessary to establish empirically, a base from which a projection can be made. In the case of personal income taxation, this would require an evaluation of the relationship between the changes in personal income relative to changes in yield over a minimum period of five years. The following example might serve to clarify this approach.

(1) Assume, that personal income has grown at an annual average rate of 10 per cent per annum. Further, assume, that in the same period yield from personal income taxation has increased on average at 20 per cent per annum.

(2) From this information the coefficient of elasticity can be computed as follows:

$$\frac{\text{Growth in yield of PI Tax}}{\text{Growth in PI}} = \frac{20.0\%\ \text{p.a.}}{10.0\%\ \text{p.a.}}$$

$$\therefore \text{Coefficient of Elasticity (e)} = 2$$

From this result it may be concluded that the yield from personal income will grow at twice the rate of growth of personal income.

(3) Before proceeding to the mechanics of projection, a further adjustment procedure must be carried out. That is, the historical growth experience of the economic variable used in the calculation must be related to the base economic variable upon which the assumption of the projection rests. For example, if the forecast depends upon an assumption of a rate of growth of 9 per cent per annum in Provincial Domestic Product, then the following adjustment must be made:

$$\frac{\text{Growth in PI}}{\text{Growth in PDP}} = \frac{10}{9} \text{ i.e. Adjustment Factor} = f(1.11)$$

This simply means that personal income has grown at 111 per cent of Provincial Domestic Product during the forecast period. Or conversely, that the growth in Provincial Domestic Product has only been about 90 per cent of personal income during the period.

(4) The next step is to establish, in dollar terms, the magnitude of the base year of the projection period. In cases where tax changes have already been announced or implemented, it is necessary to predict the revenue effects of these changes as if they had taken place in the base year and incorporate them in the base year figure.

(5) A prediction concerning the growth in the base variable must now be undertaken. This requires the combination of a number of factors relative to economic conditions and cyclical factors, including exogenous variables concerning the international ramifications of the Canadian and Ontario economy. Suppose that it is estimated that Ontario's Provincial Domestic Product will grow on average at 8 per cent per annum during the forecast period.

(6) An annual growth rate can now be computed as follows:
$(\Delta PDP.e.f) = 8 \times 2 \times 1.\ 1 = 17.76\%$ p.a.

(7) The resulting composite annual average growth rate of 17.76 per cent per annum is now applied on a compound basis to the computed base year. This calculation produces a stream of projected revenue for a given forecast period.

4. Performance of the Provincial Revenue System

Table I shows that the coefficient of elasticity of the overall provincial revenue system, excluding federal post-secondary equilization payments, is approximately 1.14 relative to Provincial Domestic Product.(1) This means that in the forecast period, net general revenue is expected to grow at about 114 per cent of the assumed rate of growth of Provincial Domestic Product. Relating this result to Table I, it can be seen that the average annual increase in revenue is expected to be 9.7 per cent under the 8.5 per cent Provincial Domestic Product p.a. growth rate assumption and 7.9 per cent in the case of the 7 per cent assumption.

When the federal post-secondary equalization payments are included, the elasticity is computed to be about 1.2 relative to Provincial Domestic Product.(2) The average annual increases in revenue is then expected to be 10.2 per cent in the case of the higher, and 8.7 per cent for the lower assumption of growth in Provincial Domestic Product.(3)

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(1) Specifically, it is 1.14 using the 8.5% p.a. PDP growth assumption, and 1.13 when 7% p.a. is used. These are treated as being equivalent.

(2) Results which incorporate federal post-secondary equilization payments have been evaluated independently, since these payments do not strictly constitute an element in the performance of the provincial revenue system. That is, they are independent of the provincial tax effort.

(3) In the case of the 7 per cent growth assumption, the coefficient of elasticity as shown in Table I is 1.2 compared with 1.20 under the 8.5% p.a. assumption. This result can be explained by the fact that federal post-secondary equalization payments produce more revenue at the lower 7% PDP growth rate than under the higher 8.5% rate.

The performance of the provincial revenue system can also be evaluated in terms of the absolute difference in revenue produced under the two different assumptions about the annual average growth rate in Provincial Domestic Product. Thus, Table I shows that the absolute difference in revenue expectations ranges from $32.5 million in the 1968-69 forecast year to $246.2 million in the 1972-73 terminal year.

The point which emerges from an evaluation of the revenue performance of the provincial revenue structure is that the government's revenue capacity is critically related to the rate of economic growth experienced in the forecast period. In short, economic performance is a direct and real constraint on the government's current revenue expectations in any given year of the forecast period.

5. Revenue Performance and the Structure of the Provincial Revenue System

It has been shown that the revenue capacity of the provincial revenue system is a function of its coefficient of elasticity relative to Provincial Domestic Product. The greater the absolute magnitude of the coefficient of elasticity, the greater is the growth in yield per unit of the relevant tax field.

In the case of the Ontario revenue structure, the overall coefficient of elasticity has been estimated at 1.14 relative to Provincial Domestic Product.(4) The provincial revenue system is, however, primarily sustained by four main categories of taxation. These are, personal income, retail sales, corporation and gasoline taxes. Approximately 70 per cent of total net general revenue is accounted for by these tax fields. Personal income taxation alone, accounts for about 25 per cent of net general revenue. An evaluation of the coefficients of elasticity for these four tax fields reveals that only personal income taxation with a coefficient of elasticity of 1.93 relative to personal income, is significantly elastic. Retail sales and corporation taxes are at best unitary, while the gasoline tax is relatively inelastic. The remaining

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(4) Exclusive of the federal post-secondary equilization payment.

taxes and revenue sources available to the government display very little prospect for growth relative to Provincial Domestic Product. In some cases, where a relatively high degree of elasticity is evident, the relevant field weighs only lightly in the overall revenue structure. This, for example, is the case with aviation fuel with a computed elasticity of 1.38 relative to Provincial Domestic Product.

It is concluded therefore, that the degree of elasticity relative to Provincial Domestic Product which is evident in the provincial revenue system is attributable, in large measure, to the relatively high degree of elasticity of the personal income tax and its weighting in the overall revenue system.

TABLE I

SUMMARY OF TOTAL NET GENERAL REVENUE GROWTH

1968-69 to 1972-73

Minimum and Maximum Streams	1968-69	1969-70	1970-71	1971-72	1972-73	Av. Annual Growth Rate %	Coefficient(1) of Elasticity
			($ Millions)				
A. Assuming 8.5% p.a. Growth in PDP.							
Total Revenue Excluding Federal Post-Secondary Equilization Payment	2449.1	2673.9	2931.1	3217.7	3541.1	9.7	1.14
Federal Post-Secondary Equilization Payment	80.0	108.0	136.0	163.0	186.0		
Total	2529.1	2781.9	3067.1	3380.7	3727.1	10.2	1.20
B. Assuming 7.0% p.a. Growth in PDP.							
Total Revenue Excluding Federal Post-Secondary Equilization Payment	2413.6	2595.7	2800.5	3024.7	3272.9	7.9	1.13
Federal Post-Secondary Equilization Payment	83.0	114.0	146.0	178.0	208.0		
Total	2496.6	2709.7	2946.5	3202.7	3480.9	8.7	1.24
Difference in Revenue between 8.5% p.a. and 7.0% p.a. Assumption in Growth PDP.	32.5	72,2	120.6	178.0	246.2		

(1) The coefficient of elasticity measures the growth in revenue relative to the assumed rate of growth of PDP.

TABLE II

RANGE OF REVENUE EXPECTATIONS FOR TERMINAL YEARS

	1968-69		1972-73	
Assumed Rates of Growth of PDP	7.0%	8.5%	7.0%	8.5%
	($ Millions)			
TAX REVENUE				
Income Tax Collection Agreement	626.2	642.3	1,044.7	1,186.0
Retail Sales Tax	464.9	471.1	602.6	644.0
Corporation Taxes	323.2	327.6	421.9	451.9
Gasoline Tax	331.9	334.8	391.2	408.2
Succession Duties	62.5	63.1	75.5	79.3
Share of Federal Estate Tax	21.6	21.8	26.1	27.4
Motor Vehicle Fuel Tax	26.3	27.0	44.1	50.1
Tobacco Tax	56.9	57.2	64.0	66.0
Race Tracks Tax	17.4	17.6	20.2	21.2
Mines Profits, Acreage, Gas	15.5	15.7	18.8	19.8
Land Transfer Tax	11.7	11.9	15.9	17.2
Hospitals Tax	10.3	10.4	14.0	15.1
Security Transfer Tax	5.0	5.1	5.9	6.1
Logging Tax	1.5	1.5	1.3	1.2
Income Tax (Public Utilities)	3.7	3.8	4.6	5.3
Other Taxation	4.1	4.1	4.5	4.5
Total Tax Revenue	1,982.7	2,015.0	2,755.3	3,003.3
Other Revenue				
Treasury				
LCBO	174.5	176.3	210.1	221.0
Post-Secondary Education Adjustment Payment	83.0	80.0	208.0	186.0
Water Power Rentals	8.6	8.8	11.2	12.0
Other	5.0	5.0	5.0	5.0
Total Treasury	271.1	270.1	434.3	424.0
Transport	137.3	138.5	165.0	173.5
Lands and Forests	33.0	33.0	39.9	39.9
Attorney General	30.4	30.4	39.2	39.2
Education	4.9	4.9	3.1	3.1
Health	10.3	10.3	10.0	10.0
Provincial Secretary and Citizenship	3.7	3.7	4.5	4.5
Highways	4.5	4.5	4.8	4.8
Mines (Less Taxes re Mines Profits, Acreage, Gas)	1.6	1.6	1.6	1.6
Agriculture and Food	1.5	1.5	2.0	2.0
Labour	2.3	2.3	3.0	3.0
Other Departments	13.3	13.3	18.2	18.2
Total Other Revenue	242.8	244.0	291.3	299.8
Total Net General Revenue	2,496.6	2,529.1	3,480.9	3,727.1

TABLE III

REVENUE FORECAST

FORECAST PERIOD: 1968-69 to 1972-73

Projected on the Assumption of
7 per cent per Annum Growth in
Provincial Domestic Product

Source	1968-69	1969-70	1970-71	1971-72	1972-73
			($ Million)		
Taxation					
Income Tax Collection Agreement	626.2	711.7	808.8	919.2	1,044.7
Retail Sales Tax	464.9	496.0	529.3	564.7	602.6
Corporation Taxes	323.2	345.4	369.3	394.7	421.9
Gasonline Tax	331.9	345.8	360.3	375.5	391.2
Succession Duty	62.5	65.5	68.7	72.0	75.5
Share of Federal Estate Tax	21.6	22.7	23.8	24.9	26.1
Motor Vehicle Fuel Tax	26.3	29.9	34.0	38.7	44.1
Tobacco Tax	56.9	58.6	60.4	62.1	64.0
Race Tracks Tax	17.4	18.1	18.8	19.5	20.2
Mines Profits, Acreage, Gas	15.5	16.3	17.1	17.9	18.8
Land Transfer Tax	11.7	12.6	13.6	14.7	15.9
Hospitals Tax	10.3	11.1	12.0	12.9	14.0
Security Transfer Tax	5.0	5.2	5.4	5.7	5.9
Logging Tax	1.5	1.5	1.4	1.4	1.3
Income Tax (Public Utilities)	3.7	3.9	4.1	4.4	4.6
Other Taxation	4.1	4.2	4.3	4.4	4.5
Total Tax Revenue	1,982.7	2,148.5	2,331.3	2,532.7	2,755.3
Other Revenue					
Treasury					
LCBO	174.5	182.8	191.5	200.6	210.1
Post-Secondary Education Adjustment Payment	83.0	114.0	146.0	178.0	208.0
Water Power Rentals	8.6	9.2	9.9	10.5	11.2
Other	5.0	5.0	5.0	5.0	5.0
Total Treasury	271.1	311.0	352.4	394.1	434.3
Transport	137.3	143.5	150.1	157.4	165.0
Lands & Forests	33.0	35.6	36.8	38.0	39.9
Attorney General	30.4	31.3	32.9	35.1	39.2
Education	4.9	3.0	3.0	3.0	3.1
Health	10.3	8.0	8.7	9.3	10.0
Provincial Secretary and Citizenship	3.7	3.9	4.1	4.3	4.5
Highways	4.5	4.3	4.5	4.6	4.8
Mines (Less Taxes re Mines Profits, Acreage, Gas)	1.6	1.6	1.6	1.6	1.6
Agriculture and Food	1.5	1.7	1.7	1.9	2.0
Labour	2.3	2.5	2.6	2.8	3.0
Other Departments	13.3	14.8	16.8	17.9	18.2
Total	242.8	250.2	262.8	275.9	291.3
Total Net General Revenue	2,496.6	2,709.7	2,946.5	3,202.7	3,480.9

TABLE IV

REVENUE FORECAST

FORECAST PERIOD: 1968-69 to 1972-73

Projected on the Assumption of
8½ per cent per Annum Growth in
Provincial Domestic Product

Source	1968-69	1969-70	1970-71	1971-72	1972-73
			($ Million)		
Taxation					
Income Tax Collection Agreement	642.3	748.7	872.8	1,017.4	1,186.0
Retail Sales Tax	471.1	509.4	550.8	595.6	644.0
Corporation Taxes	327.6	355.0	384.8	417.0	451.9
Gasoline Tax	334.8	351.8	369.7	388.5	408.2
Succession Duties	63.1	66.8	70.7	74.9	79.3
Share of Federal Estate Tax	21.8	23.1	24.5	25.9	27.4
Motor Vehicle Fuel Tax	27.0	31.5	36.8	42.9	50.1
Tobacco Tax	57.2	59.3	61.5	63.7	66.0
Race Tracks Tax	17.6	18.4	19.3	20.2	21.2
Mines Profits, Acreage, Gas	15.7	16.6	17.6	18.6	19.8
Land Transfer Tax	11.9	13.0	14.3	15.7	17.2
Hospitals Tax	10.4	11.4	12.6	13.8	15.1
Security Transfer Tax	5.1	5.3	5.6	5.9	6.1
Logging Tax	1.5	1.4	1.4	1.3	1.2
Income Tax (Public Utilities)	3.8	4.1	4.5	4.9	5.3
Other Taxation	4.1	4.2	4.3	4.4	4.5
Total Tax Revenue	2,015.0	2,220.0	2,451.2	2,710.7	3,003.3
Other Revenue					
Treasury					
LCBO	176.3	186.5	197.3	208.8	221.0
Post-Secondary Education Adjustment Payment	80.0	108.0	136.0	163.0	186.0
Water Power Rentals	8.8	9.5	10.3	11.1	12.0
Other	5.0	5.0	5.0	5.0	5.0
Total Treasury	270.1	309.0	348.6	387.9	424.0
Transport	138.5	146.2	154.6	163.6	173.5
Lands and Forests	33.0	35.6	36.8	38.0	39.9
Attorney General	30.4	31.3	32.9	35.1	39.2
Education	4.9	3.0	3.0	3.0	3.1
Health	10.3	8.0	8.7	9.3	10.0
Provincial Secretary and Citizenship	3.7	3.9	4.1	4.3	4.5
Highways	4.5	4.3	4.5	4.6	4.8
Mines (Less Taxes re Mines Profits, Acreage, Gas)	1.6	1.6	1.6	1.6	1.6
Agriculture and Food	1.5	1.7	1.7	1.9	2.0
Labour	2.3	2.5	2.6	2.8	3.0
Other Departments	13.3	14.8	16.8	17.9	18.2
Total	244.0	252.9	267.3	282.1	299.8
Total Net General Revenue	2,529.1	2,781.9	3,067.1	3,380.7	3,727.1

TABLE V

PERSONAL INCOME TAX REVENUES

FORECAST PERIOD: 1968-69 to 1972-73

	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
			($ Million)			
A. Assuming 7.0% p.a. Growth in PDP						
Average Annual Growth Rate(1) = 13.65%	551.0	626.2	711.7	808.8	919.2	1,044.7
B. Assuming 8.5% p.a. Growth in PDP						
Average Annual Growth Rate(2) = 16.57%	551.0	642.3	748.7	872.8	1,017.4	1,186.0

(1) Extrapolated from 1962-67 data as follows:
PI(G=8.8); PIT Yield (G=17.0); e = 1.93; PDP(G=8.7); PDI:PDP=(f1.01)
i.e. 7.0% x 1.93 x 1.01 = 13.65%

(2) Calculated as in Note 1, using 8.5% p.a. growth in PDP

TABLE VI

RETAIL SALES TAX REVENUES

FORECAST PERIOD: 1968-69 to 1972-73

	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
			($ Million)			
A. Assuming 7.0% p.a. Growth in PDP Average Annual Growth Rate (1) = 6.70%	435.7	464.9	496.0	529.3	564.7	602.6
B. Assuming 8.5% p.a. Growth in PDP Average Annual Growth Rate (2) = 8.13%	435.7	471.1	509.4	550.8	595.6	644.0

(1) Extrapolated from 1962-67 data as follows:

PDI(G=8.0)(3); Yield RST(G=8.3); e = 1.04; PDP(G=8.7); PDI:PDP = (£0.92);
i.e. 7.0% x 1.04 x 0.92 ≑ 6.70

(2) Calculated as in Note 1, using 8.5% p.a. growth in PDP.

(3) PDI for 1967 estimated.

TABLE VII

CORPORATION TAX REVENUE

FORECAST PERIOD: 1968-69 to 1972-73

	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
			($ Million)			
A. Assuming 7.0% p.a. Growth in PDP						
Average Annual Growth Rate (1)						
I. Income Taxes = 6.79%	276.6	295.4	315.4	336.9	359.7	384.2
II. Insurance Premium Taxes = 7.99%	25.0	27.0	29.2	31.5	34.0	36.7
III. Capital & Place of Business Taxes = 8.05%	0.7	0.8	0.8	0.9	1.0	1.0
TOTAL	302.3	323.2	345.4	369.3	394.7	421.9
B. Assuming 8.5% p.a. Growth in PDP						
Average Annual Growth Rate (2)						
I. Income Taxes = 8.25%	276.6	299.4	324.1	350.9	379.8	411.1
II. Insurance Premium Taxes = 9.70%	25.0	27.4	30.1	33.0	36.2	39.7
III. Capital & Place of Business Taxes = 9.78%	0.7	0.8	0.8	0.9	1.0	1.1
TOTAL	302.3	327.6	355.0	384.8	417.0	451.9

(1) Extrapolated from 1962-67 data as follows:
Income Taxes: PDP(G=8.7); Yield (G=8.4);e = 0.97; i.e. 7.0% x 0.97 = 6.79%. Insurance Premium Taxes: PDI (3)(G=8.0); Yield (G=9.9); e = 1.24; PDI:PDP = (£0.92); i.e. 7.0% x 1.24 x 0.92 = 7.99%; Capital & Place of Business Taxes:PDP(G=8.7); Yield(G=10.0); e = 1.15; i.e. 7.0% x 1.15 = 8.05%

(2) Calculated as in Note 1, using 8.5% p.a. Growth in PDP

(3) PDI for 1967 estimated.

TABLE VIII

GASOLINE TAX REVENUE

FORECAST PERIOD: 1968-69 to 1972-73

	1967-68(4)	1968-69	1969-70	1970-71	1971-72	1972-73
	($ Million)					
A. Assuming 7.0% p.a. Growth in PDP						
Average Annual Growth Rate(1)						
I. Motor Gasoline = 4.12%	313.2	326.1	339.5	353.5	368.1	383.3
II. Off Highway Use = 5.04%	2.1	2.2	2.3	2.4	2.6	2.7
III. Aviation Fuel = 9.66%	3.3	3.6	4.0	4.4	4.8	5.2
TOTAL	318.6	331.9	345.8	360.3	375.5	391.2
B. Assuming 8.5% p.a. Growth in PDP						
Average Annual Growth Rate(2)						
I. Motor Gasoline = 5.00%	313.2	328.9	345.3	362.6	380.7	399.7
II. Off Highway Use = 6.12%	2.1	2.2	2.4	2.5	2.7	2.8
III. Aviation Fuel =11.73%	3.3	3.7	4.1	4.6	5.1	5.7
TOTAL	318.6	334.8	351.8	369.7	388.5	408.2

(1) Extrapolated from 1962-67 data as follows:

Motor Gasoline: PDI(G=8.0)(3); cons(G=5.1); e = 0.64; PDI:PDP=(£0.92); i.e. 7.0% x 0.64 x 0.92 = 4.12%
Off Highway use: PDP(G=8.7); cons(G=6.3); e ≅ 0.72; i.e. 7.0% x 0.72 = 5.04%
Aviation Fuel: PDP(G=8.7); cons(G=12.0); e = 1.38; i.e. 7.0% x 1.38 = 9.66

(2) Calculated as in Note 1. using 8.5% p.a. growth in PDP.

(3) PDI for 1967 estimated.

(4) Adjusted for March 13, 1968 tax changes.

TABLE IX

SUCCESSION DUTIES AND FEDERAL SHARE OF ESTATE TAX

FORECAST PERIOD: 1968-69 to 1972-73

	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
			($ Million)			
A. Assuming 7.0% p.a.Growth in PDP						
Average Annual Growth Rate(1)						
(I) Succession Duty = 4.83%	59.6	62.5	65.5	68.7	72.0	75.5
(II) Share Federal Estate Tax = 4.83%	20.6	21.6	22.7	23.8	24.9	26.1
TOTAL	80.2	84.1	88.2	92.5	96.9	101.6
B. Assuming 8.5% p.a. Growth in PDP						
Average Annual Growth Rate(2)						
(I) Succession Duty = 5.86%	59.6	63.1	66.8	70.7	74.9	79.3
(II) Share Federal Estate Tax = 5.86%	20.6	21.8	23.1	24.5	25.9	27.4
TOTAL	80.2	84.9	89.9	95.2	100.8	106.7

(1) Extrapolated from 1962-67 data as follows:
PDI(G=8.0)(3); Yield S.D(G=6.0); e =0.75; PDP(G=8.7% p.a.); PDI:PDP = (f0.92)
i.e. 7.0% x0.75 x 0.92 = 4.83%

(2) Calculated as in Note 1, using 8.5% p.a. growth in PDP.

(3) PDI for 1967 estimated.

TABLE X

MOTOR VEHICLE FUEL TAX REVENUE

FORECAST PERIOD: 1968-69 to 1972-73

	1967-68(3)	1968-69	1969-70	1970-71	1971-72	1972-73
			($ Million)			
A. Assuming 7.0% p.a. Growth in PDP						
Average Annual Growth Rate(1) = 13.79%	23.1	26.3	29.9	34.0	38.7	44.1
B. Assuming 8.5% p.a. Growth in PDP						
Average Annual Growth Rate(2) = 16.75%	23.1	27.0	31.5	36.8	42.9	50.1

(1) Extrapolated from 1962-67 data as follows:

PDP(G=8.7): Yield(G=17.1); e = 1.97;
i.e. 7.0% x 1.97 = 13.79%

(2) Calculated as Note 1 , using 8.5% p.a. growth in PDP.

(3) 1967-68 Adjusted for 1968 Budget change.

TABLE XI

TOBACCO TAX REVENUES

FORECAST PERIOD: 1968-69 to 1972-73

	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
			($ Million)			
A. Assuming 7.0% p.a.Growth in PDP						
Average Annual Growth Rate (1)						
(I) Cigarettes = 3.16%	53.0	54.7	56.4	58.2	60.0	61.9
(II)Tobacco =-4.83%	1.4	1.3	1.3	1.2	1.1	1.1
(III) Cigars = 2.45%	0.9	0.9	0.9	1.0	1.0	1.0
TOTAL	55.3	56.9	58.6	60.4	62.1	64.0
B. Assuming 8.5% p.a. Growth in PDP						
Average Annual Growth Rate (2)						
(I) Cigarettes = 3.83%	53.0	55.0	57.1	59.3	61.6	64.0
(II) Tobacco =-5.86%	1.4	1.3	1.2	1.2	1.1	1.0
(III) Cigars = 2.97%	0.9	0.9	1.0	1.0	1.0	1.0
TOTAL	55.3	57.2	59.3	61.5	63.7	66.0

(1) Extrapolated from 1962-67 data as follows:
Cigarettes : PDI(G=8.0) (3) C(G=3.9) e = 0.49 PDI : PDP = (£0.92) i.e.7.0% x 0.49 x 0.92 = 3.16%
Tobacco : PDI(G=8.0) (3) C(G=-6.0) e =-0.75 PDI : PDP = (£0.92) i.e.7.0% x-0.75 x 0.92 =-4.83%
Cigars : PDI(G=8.0) (3) C(G= 3.0) e = 0.38 PDI : PDP = (£0.92) i.e.7.0% x 0.38 x 0.92 = 2.45%
(2) Calculated as in Note 1, using 8.5% p.a.growth in PDP (3) PDI for 1967 estimated

TABLE XII

RACE TRACKS TAX REVENUE

FORECAST PERIOD: 1968-69 to 1972-73

		1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
				($ Million)			
A. Assuming 7.0% p.a. Growth in FDP (1)							
Rate of growth	= 3.75%	16.8	17.4	18.1	18.8	19.5	20.2
B. Assuming 8.5% p.a. Growth in FDP (2)							
Rate of growth	= 4.75%	16.8	17.6	18.4	19.3	20.2	21.2

	Standard Racing (%)	Thoroughbred Racing (%)
(1) & (2) Estimated as follows from 1961-66 data:		
Increase in Average Attendance per Racing Day	-3.0	-0.5
Increase in Average Amount-Wagered per Racegoer p.a.	4.0	5.0
Increase in Average Number of Racing Days	47.3	Nil
(I) Increase in Total Amount-Wagered Annually	50.0	2.0
Forecast Assumptions.		
Increase in Number of Racing Days	5.0	Nil
Increase in Attendance per Racing Day	Nil	Nil
Increase in Amount Wagered per Racegoer p.a.	4.0	5.0
Increase in Total Amount Wagered Annually	7.0	2.0
(II) Weighting	60.0	40.0
Composite Growth	5.0	
Effect 1968 Tax Increase @ è = 0.75	-1.25	
New Composite Growth Rate	3.75	

1967-68 Tax Base	($ Millions)
1967-68 Race Tracks Tax Revenue	15.0
Adjusting 1967-68 to 1968-69 tax changes: i.e. 12% 1967-68 Revenue = (Allowing for 0.75 tax effect)	1.8
	16.8

Notes:

(I) Attendance per race day has not been increasing. The relatively large increase in the total amount wagered at Standard race tracks can be attributed primarily to the rapid increase in racing days. Our information is that this expansion is not expected to continue. The critical growth variabl will therefore be the amount wagered per racegoer As this shows a relationship to personal income a higher growth rate is applied under the 8.5% FD assumption.

(II) Standard racing comprises 60 percent of total amount wagered annually.

TABLE XIII

OTHER TAX REVENUES

FORECAST PERIOD: 1968-69 to 1972-73

($ Million)

		1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
A. Assuming 7.0% p.a. Growth in FDP							
Average Annual Growth Rate(1)							
Mines Profits, Acreage, Gas	= 4.90%	14.8	15.5	16.3	17.1	17.9	18.8
Land Transfer Tax	= 8.06%	10.8	11.7	12.6	13.6	14.7	15.9
Hospitals Tax	= 8.05%	9.5	10.3	11.1	12.0	12.9	14.0
B. Assuming 8.5% p.a. Growth in FDP							
Average Annual Growth Rate(2)							
Mines Profits, Acreage, Gas	= 5.95%	14.8	15.7	16.6	17.6	18.6	19.8
Land Transfer Tax	= 9.79%	10.8	11.9	13.0	14.3	15.7	17.2
Hospitals Tax	= 9.78%	9.5	10.4	11.4	12.6	13.8	15.1

(1) Extrapolated from 1962-67 data as follows:
Mines Profits, Acreage, Gas: FDP(G=8.7); Yield(G=6.1); e=0.70; i.e. 7.0% x 0.70 = 4.9%
Land Transfer Tax : PI(G=8.8); Yield(G=10.0); e=1.14; PI:FDP=(f1.01); i.e. 7.0% x 1.14 x 1.01 = 8.06%
Hospitals Tax : FDI(G=8.0)(3) Yield(G=10.0);e=1.25; FDI:FDP=(f0.92);i.e. 7.0% x 1.25 x 0.92 = 8.05%

(2) Calculated as in Note 1, using 8.5% p.a. growth in FDP

(3) FDI for 1967 estimated.

OTHER TAX REVENUES - (Cont'd)

FORECAST PERIOD: 1968-69 to 1972-73

	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
	($ Million)					
A. Assuming 7.0% p.a. Growth in FDP						
Average Annual Growth Rate(1)						
Security Transfer Tax = 4.06%	4.8	5.0	5.2	5.4	5.7	5.9
Logging Tax =-3.99%	1.6	1.5	1.5	1.4	1.4	1.3
B. Assuming 8.5% p.a. Growth in FDP						
Average Annual Growth Rate(2)						
Security Transfer Tax = 4.93%	4.8	5.1	5.3	5.6	5.9	6.1
Logging Tax =-4.85%	1.6	1.5	1.4	1.4	1.3	1.2

(1) Extrapolated from 1962-67 data as follows:

Security Transfer Tax: FDI(G=8.0)(3); Volume of shares traded (G=5.0); e=0.63; FDI:FDP=(f0.92); i.e. 7.0% x 0.63 x 0.92 = 4.06%

Logging Tax: FDP(G=8.7); Yield(G=-5.0); e=-0.57;i.e. 7.0% x -0.57 = -3.99%

(2) Calculated as in Note 1, using 8.5% p.a. growth in FDP

(3) FDI for 1967 estimated.

TABLE XV

OTHER TAX REVENUES - (Cont'd)

FORECAST PERIOD: 1968-69 to 1972-73

	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
	($ Million)					
A. Assuming 7.0% p.a. Growth in PDP						
Average Annual Growth Rate$^{(1)}$						
Income Tax (Public Utilities) = 5.60%	3.5	3.7	3.9	4.1	4.4	4.6
Other Taxation$^{(3)}$	4.0	4.1	4.2	4.3	4.4	4.5
B. Assuming 8.5% p.a. Growth in PDP						
Average Annual Growth Rate$^{(2)}$						
Income Tax (Public Utilities) = 8.76%	3.5	3.8	4.1	4.5	4.9	5.3
Other Taxation$^{(3)}$	4.0	4.1	4.2	4.3	4.4	4.5

Extrapolated from 1962-67 data as follows:

(1) Income Tax (Public Utilities): PDP(G=8.7); Yield(G=7.0); e = 0.80; i.e. 7.0% x 0.80 = 5.60%

(2) Income Tax (Public Utilities): PDP(G=8.7): Yield(G=9.0); e = 1.03; i.e. 8.5% x 1.03 = 8.76%

(3) Other Taxation as shown.

TABLE XVI

LIQUOR CONTROL BOARD OF ONTARIO REVENUE

FORECAST PERIOD: 1968-69 to 1972-73

	1967-68[3]	1968-69	1969-70	1970-71	1971-72	1972-73
			($ Millon)			
A. Assuming 7.0% p.a. Growth in PDP						
Average Annual Growth Rate[1]						
I. Gross Profit on Sales = 5.22%	162.3	170.8	179.7	189.1	198.9	209.3
II. Other Revenue = 3.35%	30.9	31.9	33.0	34.1	35.3	36.4
III.Expenses (deduction) =6.00%	(26.6)	(28.2)	(29.9)	(31.7)	(33.6)	(35.6)
TOTAL	166.6	174.5	182.8	191.5	200.6	210.1
B. Assuming 8.5% p.a. Growth in PDP						
Average Annual Growth Rate[2]						
I. Gross Profit on Sales = 6.33%	162.3	172.6	183.5	195.1	207.5	220.6
II. Other Revenue = 4.07%	30.9	32.2	33.5	34.8	36.2	37.7
III.Expenses (deduction) = 7.00%	(26.6)	(28.5)	(30.5)	(32.6)	(34.9)	(37.3)
TOTAL	166.6	176.3	186.5	197.3	208.8	221.0

(1) Extrapolated from 1962-67 data as follows:
Gross Profit on Sales: PDI(G=7.7); E(Cons=6.25); e=0.81; PDI:PDP=(f0.92); i.e. 7.0% x 0.81 x 0.92 = 5.22%
Other Revenue: PDI(G=7.7); E(Rev=4.00); e=0.52; PDI:PDP=(f0.92); i.e. 7.0% x 0.52 x 0.92 = 3.35%;
Expenses (deduction) growth 6.0% p.a.

(2) Calculated as in Note 1, using 8.5% p.a. growth in PDP; Expenses (deduction) growth 7.0% p.a.

(3) Adjusted for January 1, 1968 price increase on basis of full year.

TABLE XVII

FEDERAL POST- SECONDARY EQUILIZATION PAYMENTS

FORECAST PERIOD: 1968-69 to 1972-73

	1968-69	1969-70	1970-71 ($ Millions)	1971-72	1972-73
A. Assuming 7.0% p.a. Growth in PDP.					
50% of Cost of Post-Secondary Education	197	243	291	340	390
Yield from 4 Points Personal Income Tax plus One Point Corp. Income Tax	114	129	145	162	182
Equalization Payment	83	114	146	178	208
B. Assuming 8.5% p.a. Growth in PDP.					
50% of Cost of Post-Secondary Education	197	243	291	340	390
Yield of 4 Points of Personal Income Tax plus One Point Corp. Tax	117	135	155	177	204
Equalization Payment	80	108	136	163	186

TABLE XVIII

OTHER TAX REVENUES (TREASURY)

FORECAST PERIOD: 1968-69 to 1972-73

	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
			($ Million)			
A. Assuming 7.0% p.a. Growth in PDP						
Average Annual Growth Rate(1)						
Water Power Rentals = 6.79%	8.1	8.6	9.2	9.9	10.5	11.2
Other Revenues(Treasury)(3)	5.0	5.0	5.0	5.0	5.0	5.0
B. Assuming 8.5% p.a. Growth in PDP						
Average Annual Growth Rate(2)						
Water Power Rentals = 8.25%	8.1	8.8	9.5	10.3	11.1	12.0
Other Revenues(Treasury)(3)	5.0	5.0	5.0	5.0	5.0	5.0

(1) Extrapolated from 1962-67 data as follows:
Water Power Rentals: PDP(G=8.7); Yield(G=8.4); e = 0.97; i.e. 7.0% x 0.97 = 6.79%

(2) Calculated as in Note 1, using 8.5% p.a. growth in PDP

(3) Other Revenues(Treasury) as shown.

TABLE XIX (A)

DEPARTMENT OF TRANSPORT REVENUES

FORECAST PERIOD: 1968-69 to 1972-73

	Average Annual Growth Rate(1)	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
				($ Million)			
A. Assuming 7.0% p.a. Growth in PDP							
1. Licences (I) Autos							
4 cylinder	3.35%	5.5	5.7	5.9	6.1	6.3	6.5
6 cylinder	1.67%	27.3	27.8	28.2	28.7	29.2	29.7
8 cylinder	7.92%	32.4	35.0	37.7	40.7	43.9	47.4
Sub-Total		65.2	68.5	71.8	75.5	79.4	83.6
(II) Trucks & Tractors	2.17%	33.3	34.0	34.8	35.5	36.3	37.1
(III) Buses	7.00%	1.4	1.5	1.6	1.7	1.8	2.0
(IV) Dual Purpose Vehicles	8.05%	5.5	5.9	6.4	6.9	7.5	8.1
(V) Motorcycles	16.74%	0.5	0.6	0.7	0.8	0.9	1.1
(VI) Trailers	4.20%	9.4	9.8	10.2	10.6	11.1	11.5
Sub-Total		50.1	51.8	53.7	55.5	57.6	59.8
2. Permits	2.85%	5.1	5.2	5.4	5.5	5.7	5.9
3. Fees	5.81%	8.1	8.6	9.1	9.6	10.2	10.7
4. Fines & OHTB Fees	12.50%	2.8	3.2	3.5	4.0	4.5	5.0
Sub-Total		16.0	17.0	18.0	19.1	20.4	21.6
TOTAL		131.3	137.3	143.5	150.1	157.4	165.0

(1) Derived as shown in Table XIX (C)

TABLE XIX (B)

DEPARTMENT OF TRANSPORT REVENUES (Cont'd)
FORECAST PERIOD: 1968-69 to 1972-73

Assuming 8.5% p.a. Growth in PDP	Average Annual Growth Rate(2)	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
1. Licenses (I) Autos							
4 cylinder	4.07%	5.5	5.7	6.0	6.2	6.5	6.7
6 cylinder	2.03%	27.3	27.9	28.4	29.0	29.6	30.2
8 cylinder	9.62%	32.4	35.5	38.9	42.7	46.8	51.3
Sub-Total		65.2	69.1	73.3	77.9	82.9	88.2
(II) Trucks & Tractors	2.64%	33.3	34.2	35.1	36.0	37.0	37.9
(III) Buses	8.50%	1.4	1.5	1.6	1.8	1.9	2.1
(IV) Dual Purpose Vehicles	9.78%	5.5	6.0	6.6	7.3	8.0	8.8
(V) Motorcycles	20.33%	0.5	0.6	0.7	0.9	1.0	1.3
(VI) Trailers	5.10%	9.4	9.9	10.4	10.9	11.5	12.1
Sub-Total		50.1	52.2	54.4	56.9	59.4	62.2
2. Permits	3.46%	5.1	5.3	5.5	5.6	5.8	6.0
3. Fees	7.06%	8.1	8.7	9.3	9.9	10.6	11.4
4. Fines & OHTB Fees	15.18%	2.8	3.2	3.7	4.3	4.9	5.7
Sub-Total		16.0	17.2	18.5	19.8	21.3	23.1
TOTAL		131.3	138.5	146.2	154.6	163.6	173.5

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(2) Derived as shown in Table XIX (c) using 8.5% p.a. growth in P.D.P.

TABLE XIX (C)

DEPARTMENT OF TRANSPORT REVENUES (Cont'd)

FORECAST PERIOD: 1968-69 to 1972-73

Extrapolated from 1962-67 data as follows:

1. Licences: (I) Autos					
4 cylinder	PDI(G=7.7)	G(Reg=4.0)	e = 0.52	PDI:PDP = (£0.92)	7.0% x 0.52 x 0.92 = 3.35%
6 cylinder	PDI(G=7.7)	G(Reg=2.0)	e = 0.26	PDI:PDP = (£0.92)	7.0% x 0.26 x 0.92 = 1.67%
8 cylinder	PDI(G=7.7)	G(Reg=9.5)	e = 1.23	PDI:PDP = (£0.92)	7.0% x 1.23 x 0.92 = 7.92%
(II) Trucks & Tractors	PDP(G=8.4)	G(Reg=2.6)	e = 0.31		7.0% x 0.31 = 2.17%
(III)Buses	PDP(G=8.4)	G(Reg=8.4)	e = 1.00		7.0% x 1.00 = 7.00%
(IV) Dual Purpose Vehicles	PDP(G=8.4)	G(Reg=9.7)	e = 1.15		7.0% x 1.15 = 8.05%
(V) Motorcycles	PDI(G=7.7)	G(Reg=20.0)	e = 2.60	PDI:PDP = (£0.92)	7.0% x 2.60 x 0.92 =16.74%
(VI) Trailers	PDP(G=8.4)	G(Reg=5.0)	e = 0.60		7.0% x 0.60 = 4.20%
2. Permits (1959-64)	Popul(G=1.8)	G(Permits=3.5)	e = 1.94	Pop:PDP = (£0.21)	7.0% x 1.94 x 0.21 = 2.85%
3. Fees	PDP(G=8.4)	G(Reg=7.0)	e = 0.83		7.0% x 0.83 = 5.81%
4. Fines	Registr.(G=4.7)	G(Fines=15.0)	e = 3.19	Reg:PDP=(£0.56)	7.0% x 3.19 x 0.56 =12.50%

TABLE XX

OTHER REVENUES (1)

FORECAST PERIOD: 1968-69 to 1972-73

($ Million)

		1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
1.	Lands & Forests	-	33.0	35.6	36.8	38.0	39.9
2.	Attorney-General	-	30.4	31.3	32.9	35.1	39.2
3.	Education	-	4.9	3.0	3.0	3.0	3.1
4.	Health	-	10.3	8.0	8.7	9.3	10.0
5.	Provincial Secretary & Citizenship	-	3.7	3.9	4.1	4.3	4.5
6.	Highways	-	4.5	4.3	4.5	4.6	4.8
7.	Mines (Less Profits Acreage, Gas)(2)	1.6	1.6	1.6	1.6	1.6	1.6
8.	Agriculture & Food(3)	1.4	1.5	1.7	1.7	1.9	2.0
9.	Labour	-	2.3	2.5	2.6	2.8	3.0
10.	Other Departments	-	13.3	14.8	16.8	17.9	18.2

(1) With the exception of item (7) the revenue estimates of departments have been accepted for the purposes of this initial forecast.

(2) Imputed on a weighted basis from total mines revenue.

(3) 1967-68 actual figures are available.

HJ/2056.5/.O5/.O57/1968
Ontario. Ministry of Treas
Ontario government
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